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ABSTRACT

Designed to update the San Diego Community College District (SDCCD) Board of Trustees and Chancellor on district transfer activities, this report offers information on the number and characteristics of SDCCD students who transferred to San Diego State University (SDSU) in fall 1989, and outlines broader issues concerning transfer. Introductory sections provide a brief description of the definitions of transfer proposed by the National Effective Transfer Consortium and the Transfer Assembly and argue for the adoption and application of a consistent definition in the district. The next section explains the methods by which SDCCD student data were matched with SDSU data to determine the number and characteristics of district transfers. A discussion section offers a profile of transfer students, considers findings related to transfer and ethnicity, and offers data on pre- and post-transfer grade point averages (GPA's), transfer credits, and performance of transfer students. Selected findings include the following: (1) the "typical" SDCCD transfer student was a Caucasian female between the ages of 20 and 24, attending SDSU on a full-time basis, while the "typical" SDCCD student (also a Caucasian female) was more likely to be 35 years of age or older and attending part-time; (2) almost 77% of the transfer students identified "transfer" as their educational objective, compared to 51% of the general SDCCD student population; (3) the academic performance of transfer students at SDSU was on par with "native" California State University students; and (4) Caucasian and Asian students were somewhat overrepresented in the transfer group, while Latino and African-American students were slightly underrepresented. The final sections review trends and findings and offer recommendations concerning the improvement of data collection efforts and educational equity goals. (JMC)

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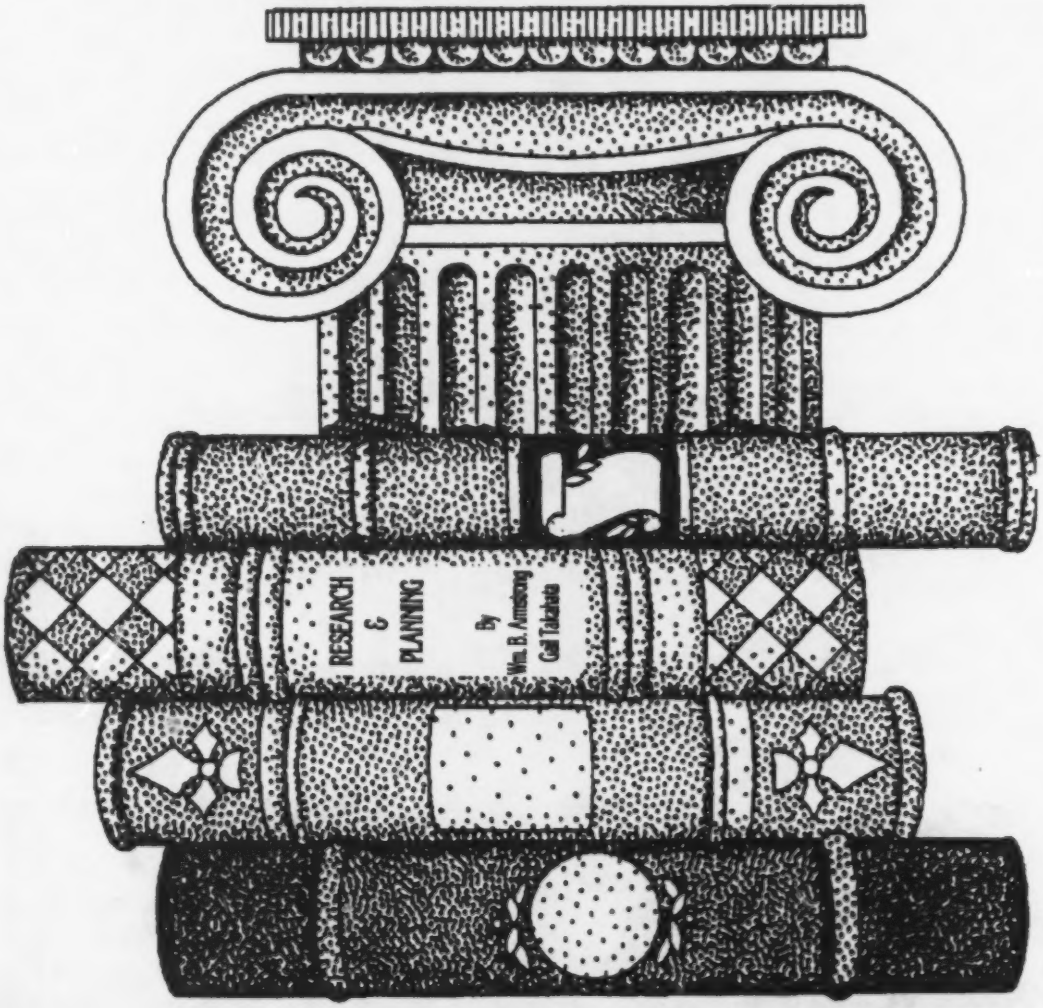
INSTITUTIONAL EFFECTIVENESS AND THE TRANSFER FUNCTION

IN THE SAN DIEGO COMMUNITY COLLEGE DISTRICT



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Institutional Effectiveness and the Transfer Function

EXECUTIVE SUMMARY

I. INTRODUCTION

The Research and Planning Department periodically updates the San Diego Community College District (SDCCD) Board of Trustees and Chancellor on District transfer activities. This report serves that purpose as well as outlining broader issues concerning transfer. Specifically, the Introduction and Background sections of this report provide a brief description of the various definitions of transfer and argues for the need to adopt and apply a consistent definition of transfer in order to accurately assess District transfer activities. In addition, the Discussion section reports the results of a data match which sought to examine the number and characteristics of students who transferred from one of the San Diego Community College District's colleges to San Diego State University (SDSU).

As important as the transfer function is to the community college segment, there is a lack of consensus on a definition of a transfer rate (Banks 1990, Cohen 1987, McIntyre 1987). While it is generally agreed that the transfer rate is the ratio of students who transfer to the potential number of transfer students, there is less agreement on what constitutes a "transfer student." Some colleges use total headcount, others use full-time equivalents, and still others use credit-only students; each of these definitions yields a very different rate of transfer. The California Postsecondary Education Commission (CPEC) compiles information on student transfer from data included in fall term student enrollment tapes sent to CPEC by the University of California (UC) and the California State University (CSU). Data from the independent sector is gathered by surveying "the sources of their first-time freshmen and California community college transfer students" (CPEC, 1989).

The two most widely recognized models of transfer are the National Effective Transfer Consortium (NETC) and the Transfer Assembly (TA) model. The NETC model defines the transfer rate as the ratio of transfers to "leavers" and includes only those students who could "reasonably" transfer. The TA model defines transfer as: "all students entering in a given year (1) who have no prior college experience, (2) who complete at least 12 degree-credit units at the college, and who subsequently enroll at a senior institution" (Cohen, 1990).

The TA model has several advantages over the other models discussed. First, the number of students who transfer are compared to the total number of students in the cohort, not to a completely different pool of potential transfers. Second, it is easier to track the students in the cohort because they are identified at one time (e.g., Fall of 1984) as opposed to the NETC model where it needs to be determined on an individual basis what semester each student in the "leaver" group started. Third, the NETC model relies on student follow-up surveys to determine if "leavers" transfer, thus the transfer rate is in large part determined by the response rate to surveys, the mobility rate of students and differences among groups that tend to respond to surveys. Finally, the TA model adjusts for students not reasonably able to transfer (Cohen's "casual" students) by including "12 or more degree-credit units" as part of the definition.

II. Discussion

Profile of Transfer Students

In 1990, SDCCD student data were matched with San Diego State University to examine the number and characteristics of students who had transferred from one of the San Diego Community College District's colleges to SDSU. Fall 1989 students were matched by Social Security Number; the match produced 3,813 cases that enrolled at SDSU. Data used in the comparisons of student profiles were gathered from document reviews. Documents reviewed included: CPEC's Student Profiles and Transfer Student Statistics; CSU's Academic Performance Reports; and SDCCD's Research and Planning Student Profile and Attrition reports.

What are SDCCD transfer students like and how do they differ from students in the general SDCCD student population? According to the profiles generated from the SDSU data match, students differed in several respects. Students that transferred to SDSU tended to be younger (20-24 years old) than the students in the general SDCCD population (25 and older). Caucasian and Asian students represented a higher percentage of the transfer group (66.8 percent and 10.6 percent, respectively) than their representation in the SDCCD general population (64.0 percent and 7.6 percent, respectively). Latino and African American students made up a smaller percentage of transfer students (7.9 percent and 6.4 percent, respectively) than their representation in the SDCCD population (11.0 percent and 7.9 percent, respectively).

As would be expected, the educational objectives of the two groups differed (Figure 6). Almost 77 percent of the transfer students identified "transfer" as their education objective

compared to 51 percent of the general SDCCD population. Conversely, 27.8 percent of the SDCCD student population identified a job-related objective compared to only 8 percent of the transfer students. About 12 percent of SDCCD students were enrolled in classes full-time (12 or more credits) compared to 59.1 percent of the transfer students enrolled at SDSU.

The distribution of students by gender was almost identical for the two groups (Figure 8). Both groups were comprised of slightly more females (51.7 percent for SDCCD and 52.1 percent for transfers) than males (48.2 percent for SDCCD and 47.8 percent for transfers). Business (including finance, management, accounting, other business) was the major most often declared by transfer students (25.3 percent), followed by Engineering (7.8 percent) and Education (7.0 percent).

Transfer and Ethnicity

Assembly Concurrent Resolution (ACR) 83 recommendations emphasized the State's goal for educational equity among the segments, including, but not limited to, educational achievement patterns for each ethnic subgroup at parity with the general population. Latino students comprise 18.2 percent of the County's high school graduates but represent 10.6 percent of the SDCCD enrollment, 13.7 percent of the SDCCD transfers to the UC and 9.7 percent of the SDCCD transfers to CSU. Disparities in representation were evident for African American students as well (6.2, 9.1, 2.9, and 7.8 percent). In contrast, Asian students comprise 6.0 percent of high school graduates, 9.4 percent of the District's enrollment, and 13.2 percent and 11.0 percent of the District's transfers to the UC and CSU, respectively. Since 1988, the number and percentage of African American, Latino and Asian/other (Pacific Islander, Filipino, Native American) students in the District have increased while the number and percentage of Caucasian students has decreased (Figures 10 & 11).

Analysis of the profile data showed some differences between the ethnic groups. Native American and African American students in the profile group tended to be older than students in other ethnic groups (27 and 26 years old, respectively). The average age of Filipino and Asian students was 22.6 and 22.8 years old, respectively. Native American and Caucasian students had the highest GPA for community college coursework (3.11 and 3.08) and were the two groups whose GPA declined the least after transferring to SDSU (Figure 12). African American students had the lowest GPA in community classes (2.75) and showed the largest decline in GPA after transferring (.66). The median number of transfer credits accepted by SDSU ranged from 64 (Asian, Filipino and African American students) to 70 (Native American students). The number of transfer credits accepted exceeded the number of units accumulated at a SDCCD college by 0 to 24 units, indicating that students had credits from other institutions (Figure 13).

Transfer Student Performance

According to Academic Performance Reports published by the CSU, the average grade point average (GPA) of "native" students (students that start out as first-time freshman at the CSU) was 2.57 compared to 2.47 for all California community college students transferring to SDSU and 2.53 for San Diego Community College District students transferring to SDSU (CSU, 1989). While a minimum of 56 units is required to transfer to a four-year institution, 39 percent students in the profile group transferred to SDSU with more than 56 units (16 percent transferred with more than 80 units). Almost 25 percent of the seniors had more than 133 units, the maximum number of units needed to graduate with a bachelor's degree in any major.

III. Recommendations

1. Continue to work with San Diego State University on data matching and expand these efforts to include the University of California, San Diego; the University of San Diego; and National University. The 1990 data match has provided information that is valuable in the planning and assessment of District transfer and articulation activities. This will also assist in meeting both the spirit and intent of Model Accountability System (MAS) mandates.

2. Explore additional means of moving the District toward the State's goal of educational equity. Certain groups (Latino and African American students, for example) are represented in the transfer profile sample in a smaller proportion than their representation in the District's general population and the community at-large. Given that the UC and the CSU accept only the top one-eighth and one-third of public high school graduates, respectively, and with increasing tuition costs, community colleges represent an alternative, and often the only, way for these groups to access higher education.

3. Adopt the Transfer Assembly's model of transfer. In order to accurately assess District transfer effectiveness, a consistent definition of transfer needs to be adopted and applied. Of the models most widely recognized, the longitudinal cohort tracking model proposed by the Transfer Assembly is comprehensive and corrects for the flaws present in other models.

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I. INTRODUCTION

The importance of the transfer of community college students to four-year colleges and universities is underscored in the mandates of California's higher education legislation and regulations. California's Master Plan for Higher Education defines transfer education as one of the two primary missions of the community college. The accountability system set forth in AB 1725 recognizes student transfer programs and rates as being important measures in assessing the performance of community colleges (EC 71020.5).

California Postsecondary Education Commission (CPEC) compiles statistics on student transfer from data included in fall term student enrollment tapes sent to CPEC by the University of California (UC) and the California State University (CSU). According to CPEC statistics, community college student transfers to the University of California and California State University increased steadily from the mid-sixties to the mid-seventies (Figures 1 and 2).

In the mid-sixties, between 3,000 and 4,000 students transferred from California community colleges to the University of California. At its peak in the 1973, over 8,000 students transferred (8,193). The late-seventies and early-eighties saw a steep decline in transfers from 8,002 (1975) to 4,847 (1981). Since 1986, the number of community college student transfers to the University of California has been increasing (from 4,861 to 7,420 in 1990).

Figure 1. Number of California Community College transfer students enrolled in the University of California, Fall 1965 through Fall 1990. Source: California Postsecondary Education Commission's Update of Community College Transfer Student Statistics, 1989-90.

The number of California community college transfers to the California State University increased from the late-sixties (approximately 28,00 in 1969) to the early-seventies (approximately 35,00 in 1972). The seventies saw alternating years of increases and decreases in the number of transfers (1973-1978) followed by a period of stability at around 30,000 transfers per year (1979-1985). Since 1986, the number of transfers to the CSU has increased and decreased during alternate years.

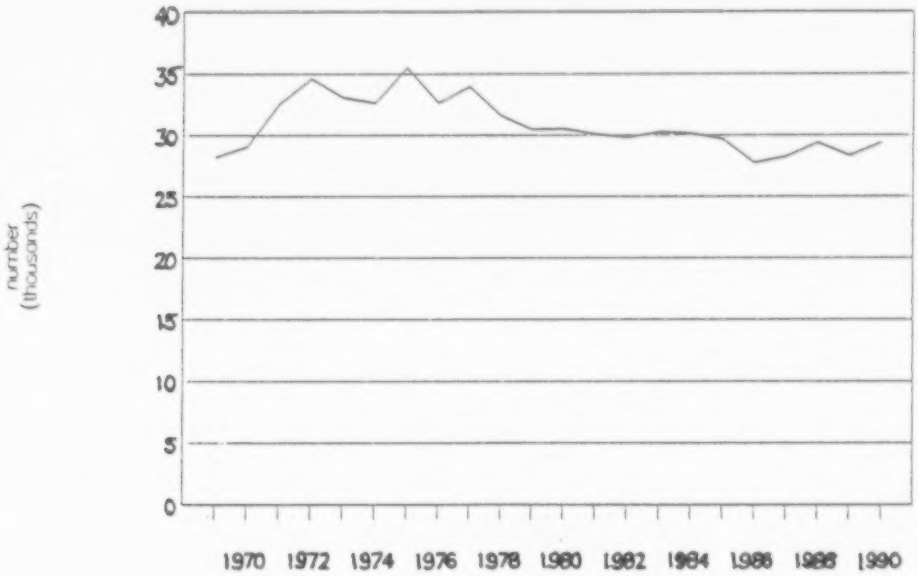

Figure 2. Number of California Community College transfer students enrolled in the California State University, Fall 1969 through Fall 1990. Source: California Postsecondary Education Commission's Update of Community College Transfer Student Statistics, 1989-90.

The decline of the late seventies had a significant economic impact on many community colleges (CPEC (1990), Grubb (1989), Yaklin (1987)). Numerous studies were undertaken to determine the reason(s) for the decline. The decline in the number of transfer students has been attributed to:

1. The decline in the number of high school graduates.
2. Changes in the ethnic composition of graduates toward a population less interested in obtaining a bachelor's degree.
3. Men who were not enrolled in college full-time were no longer subject to the military draft.
4. Benefits of earlier GI bill were expiring for those who might attend college (CPEC, 1990).

Yaklin (1987) concurs with these reasons and adds that the decline was also the result of an increase in the amount of financial aid available (making a four-year institution affordable to more) and the UC and CSU programs initiated to increase the recruitment of historically underrepresented ethnic groups. Cohen (1983) attributed the decline to two factors: (1) decline in student preparation in high school and (2) "casual" attendance patterns promoted by California's tuition-free community colleges.

From 1981 to 1984, the San Diego Community College District experienced an increase in the number of its students transferring to four-year institutions (from 1006 to 1345). From 1985 to 1990, the District experienced alternate years of growth and decline in the number of transfer students (Figure 3). In 1985, the smallest number of students (989) transferred to the UC and the CSU of the ten years charted.

Figure 3. Number of transfer students from the San Diego Community College District to the University of California and the California State University, Fall 1981 through Fall 1990. Source: California Postsecondary Education Commission Student Profiles, 1990.

II. Background

As important as the transfer function is to the community college segment, there is a lack of consensus on a definition of a transfer rate (Banks 1990, Cohen 1987, McIntyre 1987). While it is generally agreed that the transfer rate is the ratio of students who transfer to the potential number of transfer students, there is less agreement on what constitutes a "transfer student." Some colleges use total headcount, others use fulltime equivalents, and still others use credit-only students; each of these definitions yields a very different rate of transfer.

Banks (1990) distinguished between two methods for deriving equations for transfer rates. Cross-sectional equations provide a one-point-in-time "snapshot" of student transfer by comparing the number of students transferring in a single time period with a completely different pool of future transfer students. Table 1 illustrates the disparity of results when varying definitions of transfer are applied. Using the same number of students transferring (numerator) but varying the pool of students (denominator) yields a transfer rate as low as 3.7 percent or as high as 17.7 percent.

Table 1
Cross-sectional Measures of Transfer Rates for
California Community Colleges: 1982-83

Total Enrollments	Number of Transfers	Transfer Rate	The Denominator:
1354949	50537	3.7%	Includes credit/ noncredit and continuing students.
Total Credit Enrollment	**Number of Transfers**	**Transfer Rate**	**The Denominator:**
1164195	50537	4.3%	Includes continuing students but eliminates noncredit.
Full-time Credit	**Number of Transfers**	**Transfer Rate**	**The Denominator:**
303854	50537	16.6%	Includes continuing students. Eliminates noncredit and part-time credit enrollment (which is 74% of the total credit enrollment).
First-time Freshman	**Number of Transfers**	**Transfer Rate**	**The Denominator:**
285108	50537	17.7%	Includes full-time and part-time students. Eliminates noncredit and continuing students.

Source: California Postsecondary Education Commission data.

Similarly, Clagett (1990) illustrated the possible range of transfer rates for Maryland community colleges from a low of 27.6 percent (with all first-time students as the denominator) to a high of 81.9 percent (using first-time students who graduated from a transfer program and had a transfer goal). A criticism of using a cross-sectional approach is that it compares current transfer students to a potentially very different population (current students who may or may not transfer at a later time). Demographic and educational, as well as situational differences in the two groups are not taken into consideration in the transfer rate equations.

The number of California community college transfer students reported in CPEC's Update of Community College Transfer Student Statistics is complied from data tapes sent to CPEC by the University of California and the California State University. Data from the independent sector is gathered by surveying "the sources of their first-time freshmen and California community college transfer students" (CPEC, 1989). It has been argued that CPEC statistics represent "incomplete information" because of the different way that the California State University and the University of California credit transfer students (Renkiewicz 1985, Hall 1991). The CSU credits students to the last educational institution that the student attended regardless of the amount of work completed there. The UC credits students to the high school they attend if they qualified to enter the UC from high school, even if the student's last institution of attendance was a community college. Further, community colleges are not credited for students that are concurrently enrolled in a community college and the UC or the CSU nor are they credited for reverse transfers (students who attend the UC or the CSU and transfer to the community college).

National Effective Transfer Consortium

A second method for defining transfer involves taking a longitudinal approach to deriving a transfer rate. The two most widely accepted longitudinal models are the National Effective Transfer Consortium (NETC) model and the Center for the Study of Community Colleges' Transfer Assembly model. The NETC is a consortium of 29 community colleges in 13 states organized to "enhance the capability of member institutions to transfer students to four-year colleges and universities." The Consortium has contracted with Berman-Weiler Associates in Berkeley to compile a database of student survey responses and demographics to be used to study, among other things, transfer effectiveness.

The premise behind the NETC model is that the traditionally used equation to define transfer rate reflects an artificially low rate of transfer because it includes (in the denominator) students who could not reasonably transfer. A more accurate

definition of transfer includes only those students who are reasonably able to transfer or:

$$\frac{\text{number of transfers}}{\text{number of leavers}} \times 100$$

where: 1) leavers are defined as those students who enroll for credit in one term but do not reenroll in the subsequent term; and
2) those students who would not reasonably be expected to transfer include:
   a) non-credit students
   b) students with a bachelor's degree from a four-year college or university (or are concurrently enrolled in such a program)
   c) leavers with less than six credits.

Using this model, the average Consortium college transfer rate was approximately 25 percent, as compared to 5 percent using the ratio of the number of transfers to total enrollment equation. A criticism of the NETC model is that it identifies students only when they leave the system. As a result, students in the "leaver" group may have started college at different times and experienced different external factors that contribute to the likelihood of the student transferring. To Stanley and Campbell (1963) and Astin (1991) differential "history" or entry characteristics may confound results. To Grubb (1989) external factors such as economic conditions and government policies may bias the comparison.

A second problem with the NETC model is that transfer is credited to the leaver's college. For example, if a student takes 36 credits at City College and then takes six at Grossmont Community College, Grossmont would be credited with the transfer even though the student took most of his or her credits at City (and, theoretically, City had more of an impact on the student's academic preparation).

Finally, the NETC model relies primarily on student follow-up surveys for determining if "leavers" transferred, thus the transfer rate is in large part determined by the response rate to surveys, the mobility rate of students and differences among groups that tend to respond to surveys. Adelman (1990) argues that "surveys are intrusive phenomenological artifacts" and that while "transcripts neither exaggerate nor forget, people responding to surveys, however, do both."

Transfer Assembly

An objective of the 1990 Transfer Assembly sponsored by the Center for the Study of Community Colleges and the Ford Foundation was to define transfer and a method for calculating a transfer rate. Representatives from 48 community colleges, the state and federal government, the Ford Foundation's Minority Transfer Project, and four-year institutions participated in discussions on transfer and adopted the following definition:

> All students entering in a given year who (1) have no prior college experience, (2) who complete at least 12 degree-credit units at the college, and who subsequently enroll at a senior institution (Cohen, 1990).

A cohort is identified on entrance to the college (e.g. all students entering in Fall 1984) and the transfer rate is calculated as follows:

$$\frac{\text{first-time entrants w/12+ credits who transfer}}{\text{first-time entrants with 12+ credits}} \times 100$$

Using this definition Cohen found that about 51 percent of the students in his sample (collected from 48 community colleges in 16 states) had no prior college experience and had completed at least 12 units. Of these, 23 percent had subsequently enrolled at a senior institution (Table 2).

Table 2
Comparisons of Percent Averages of Credit and Transfer Rates for Students by Race/Ethnicity
(N = 48 colleges or 77,903 students)
Fall 1984 and Fall 1985

Rates	Black	Hispanic	Am. Ind.	White	Total
C/E	52%	59%	43%	47%	51%
T/C	16%	18%	15%	31%	23%

This model has several advantages over those previously discussed. First, the number of students who transfer are compared to the total number of students in the cohort, not to a completely different pool of potential transfers. Second, it is easier to track the students in the cohort because they are identified at one time (in this example, Fall of 1984) as opposed to the NETC model where it needs to be determined on an individual basis what semester each student in the "leaver" group started. Third, the NETC model is based on a student survey of a relatively small proportion of the total number of students in their database (less than five percent). Students that respond to surveys are often different (in age, gender, income, strength of opinion, etc.) from those that don't. Finally, this model adjusts for what Berman and Weiler consider students not reasonably able to transfer (Cohen's "casual" students) by including "12 or more degree-credit units" as part of the definition.

III. METHODOLOGY

In 1990, SDCCD student data were matched with San Diego State University (SDSU) to examine the number and characteristics of students who had transferred from one of the San Diego Community College District's colleges to SDSU. Fall 1989 students were matched by Social Security Number; the match produced 3,813 cases that enrolled at SDSU. Data from both San Diego Community College District's and San Diego State's database were extracted for analysis. Data elements from the SDCCD database included: gender, ethnicity, grade point average, age, SDCCD campus attended, educational objective, and cumulative units earned at SDCCD. Data elements from the SDSU database included: primary major code, units enrolled, Educational Opportunity Programs and Services (EOPS) status, level, admission basis code, SDSU cumulative grade point average, number of transfer units accepted, and total number of units earned. Data were analyzed using the Statistical Package for Social Sciences (SPSS).

Data used in the comparisons of student profiles were gathered from document reviews. Documents reviewed included: CPEC's Student Profiles and Transfer Student Statistics; CSU's Academic Performance Reports; and SDCCD's Research and Planning Student Profile and Attrition reports.

IV. Discussion

Profile of Transfer Students

What are SDCCD transfer students like and how do they differ from students in the general SDCCD student population? According to the profiles generated from the SDSU data match, students

differed in several respects. Students that transferred to SDSU tended to be younger than the students in the general SDCCD population. Almost half (49.4 percent) of the students in the transfer group were between 20 and 24 years old (Figure 4). The largest subgroup of SDCCD students (22.1 percent) fell in the 35 and older category, followed by the 25 to 29 year old category (20.2 percent).

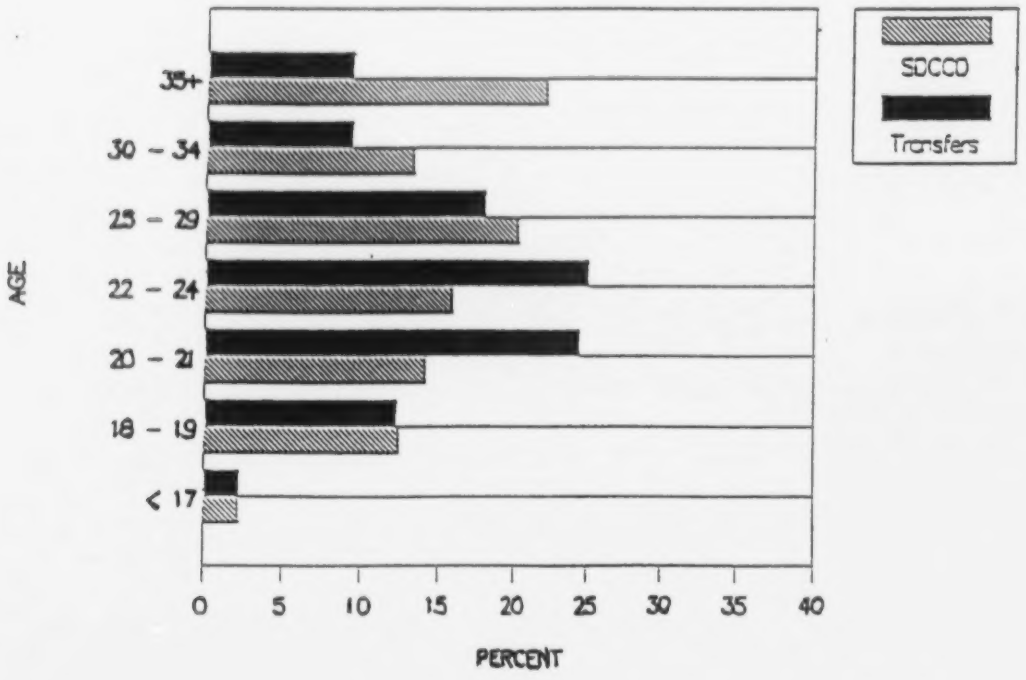

Figure 4. Distribution of students in San Diego Community College District (N = 52,304) and SDCCD students who transferred to San Diego State University (N = 3,813) by age. Source: SDCCD - Research and Planning Student Profile (Fall, 1989). Transfers - 1990 data match with SDSU.

Caucasian and Asian students represented a higher percentage of the transfer group than their representation in the SDCCD general population (Figure 5). Caucasian students made up 64 percent of the SDCCD population and 66.8 percent of the transfer group. Asian students comprised 7.6 percent of the SDCCD group and 10.5 percent of the transfers. Latino and African American students made up a smaller percentage of transfer students than their

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representation in the SDCCD population. Latino students comprised 11.0 percent of the SDCCD population and 7.9 percent of the transfer group. African American students made up 9.2 percent of the SDCCD population and 6.4 percent of the transfers.

Representation of all other ethnic groups was similar for the SDCCD and transfer groups. American Indian students comprised 1.4 percent of the SDCCD general population and 1.0 percent of the transfers. Filipino students made up 4.1 percent of the SDCCD population compared to 4.2 percent of the students in the transfer group.

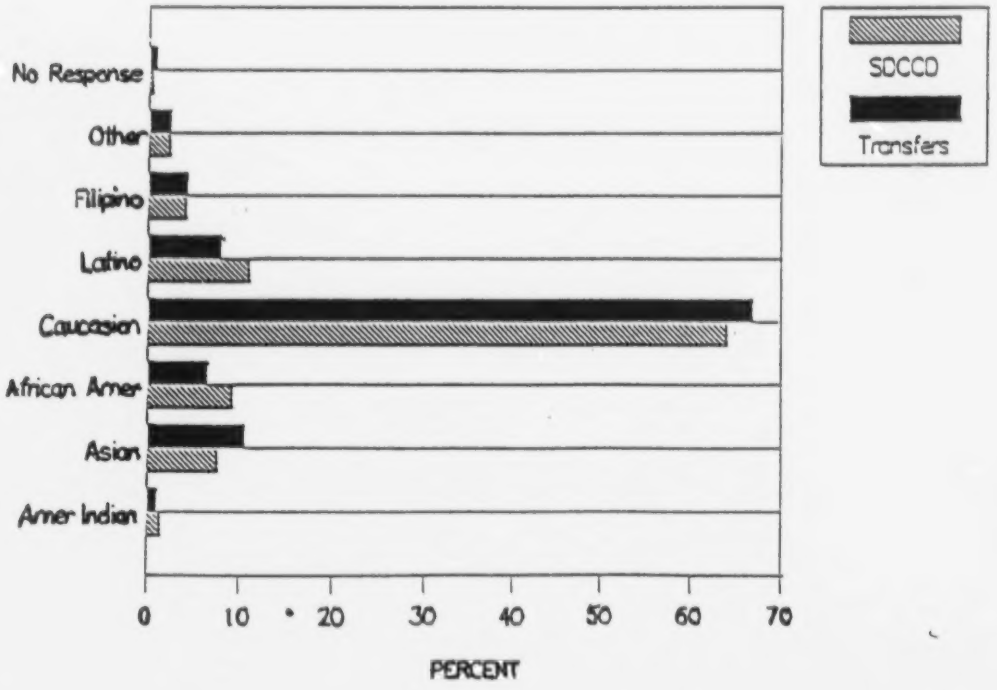

Figure 5. Distribution of students in San Diego Community College District (N=52,304) and SDCCD students who transferred to San Diego State University (N=3,813) by racial/ethnic group. Source: SDCCD - Research and Planning Student Profile (Fall, 1989). Transfers - 1990 data match with SDSU.

As would be expected, the educational objectives of the two groups differed (Figure 6). Almost 77 percent of the transfer students identified "transfer" (transfer/AA-AS degree (28.5 percent), transfer/no degree (48.2 percent)) as their education objective compared to 51 percent of the general SDCCD population

(28.0 percent and 22.6 percent, respectively). Nearly 28 percent of the SDCCD student population (27.8 percent) identified a job-related objective (AA/AS degree/vocational (6.5 percent), certificate (3.9 percent), job skills (8.5 percent), future job (8.9 percent)) compared to only 8 percent of the transfer students (2.6 percent, 0.7 percent, 1.5 percent and 3.2 percent, respectively).

A General Education Degree (GED) was indicated as the educational objective for 4.6 percent of the District's population and 3.5 percent of the SDCCD transfers. Almost 15 percent of the SDCCD general population (14.9 percent) listed "personal" as their educational objective compared to 9.2 percent of the students who had transferred to SDSU.

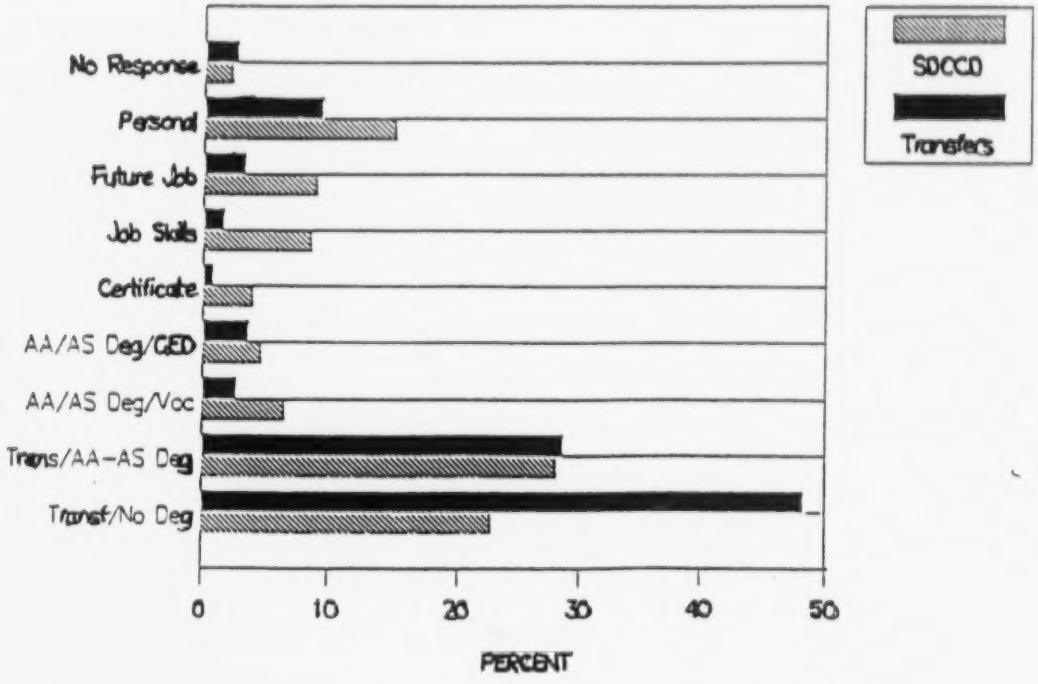

Figure 6. Distribution of students in San Diego Community College District (N=52,304) and SDCCD students who transferred to San Diego State University (N=3,813) by educational objective. Source: SDCCD - Research and Planning Student Profile (Fall, 1989). Transfers - 1990 data match with SDSU.

The last area that the two groups differed in was number of units enrolled (Figure 7). The majority (64.4 percent) of SDCCD students enrolled in classes half time or less. Almost 27 percent of the SDCCD general population (26.8 percent) was enrolled in no credits (this includes 23.5 percent that dropped before the end of the semester). Eight and a half percent of the SDCCD students enrolled in between .5 and 2.5 credits; 29.1 percent enrolled in 3.0 to 5.5 credits.

In contrast, 59.1 percent of the transfer students were enrolled at SDSU full time (12 or more credits). Only 9.1 percent of the students in the transfer group were enrolled in less than six credits. Almost 32 percent were enrolled in between 6.0 and 11.5 credits (15.5 percent in 6.0 to 8.5 credits and 16.2 percent in 9.0 to 11.5 credits).

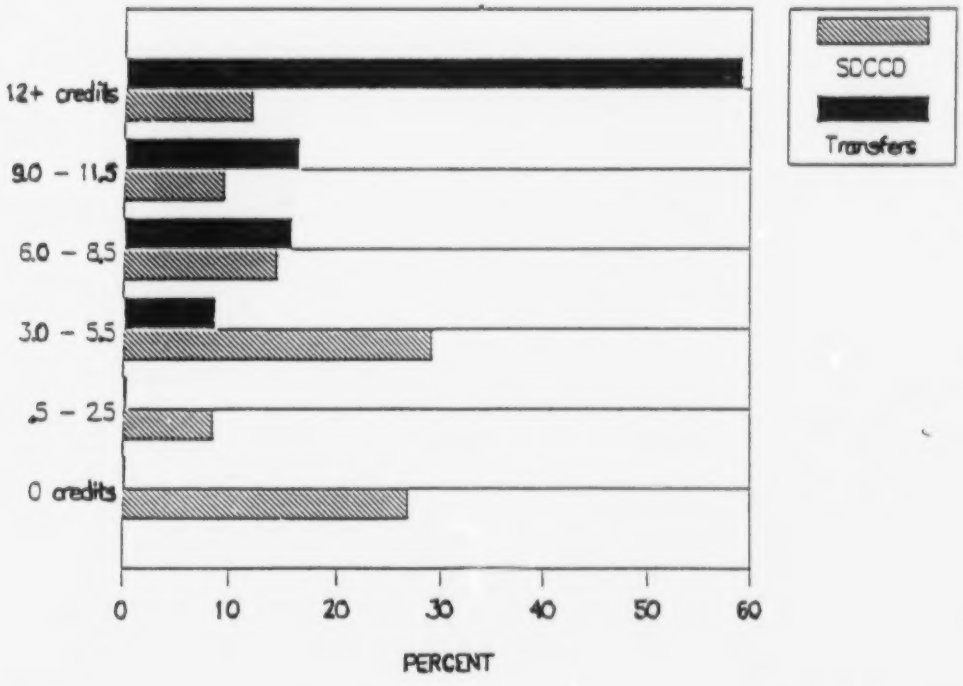

Figure 7. Distribution of students in San Diego Community College District (N=52,304) and SDCCD students who transferred to San Diego State University (N=3,813) by units enrolled. Source: SDCCD - Research and Planning Student Profile (Fall, 1989). Transfers - 1990 data match with SDSU.

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The distribution of students by gender was almost identical for the two groups (Figure 8). Both groups were comprised of slightly more females (51.7 percent for SDCCD and 52.1 percent for transfers) than males (48.2 percent for SDCCD and 47.8 percent for transfers). Business (including finance, management, accounting, other business) was the major most often declared by transfer students (25.3 percent), followed by Engineering (7.8 percent) and Education (7.0 percent). Of the students that transferred, those that listed their educational objective as something other than "transfer," were more likely to be "undecided" as to their SDSU major.

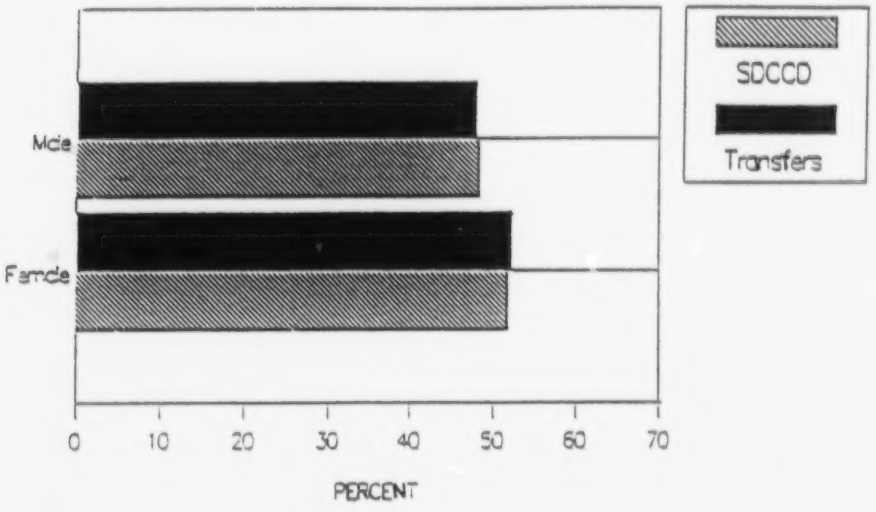


Figure 8. Distribution of students in San Diego Community College District (N=52,304) and SDCCD students who transferred to San Diego State University (N=3,813) by gender.
Source: SDCCD - Research and Planning Student Profile (Fall, 1989). Transfers - 1990 data match with SDSU.

Transfer and Ethnicity

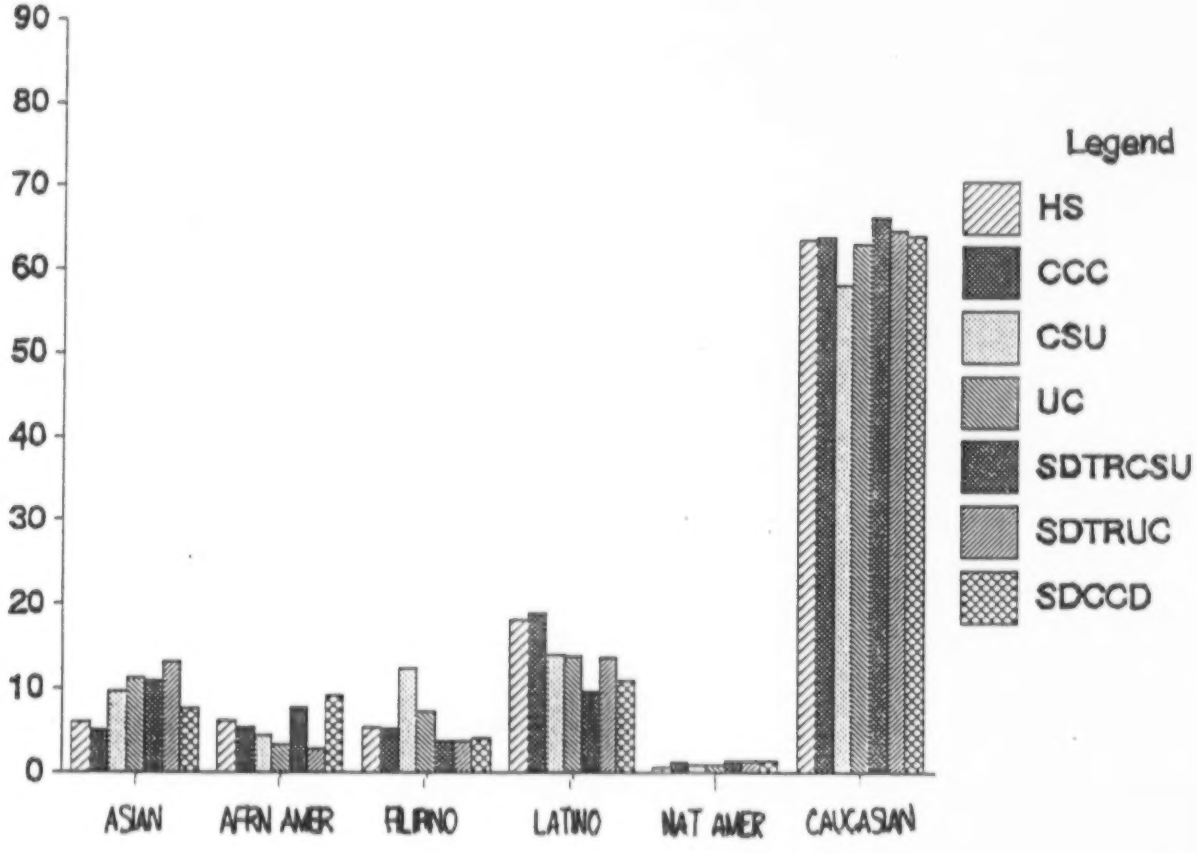
Assembly Concurrent Resolution (ACR) 83 recommendations emphasized the State's goal for educational equity among the segments, including, but not limited to, educational achievement patterns for each ethnic subgroup at parity with the general population. According to CPEC statistics, disparities exist for African American and Latino students. African Americans make up 7.5 percent of all Californians and 8 percent of all California

public high school graduates yet comprise only 2.5 percent of UC-eligible students and 3.2 percent of UC degree recipients. Similarly, Latinos comprise 23.3 percent of the State's population and 19.5 percent of high school graduates but only 6.7 percent of UC-eligible students and 7.4 percent of UC degree recipients.

Figure 9 displays the distribution of San Diego County high school graduates; first-time freshmen enrollment at California community colleges, the University of California, and California State University ; District transfers to the UC and CSU; and SDCCD student population by ethnicity. Patterns in the ethnic distribution of the District parallel that of the State. Latino students comprise 18.2 percent of the County's high school graduates but represent 10.6 percent of the SDCCD enrollment, 13.7 percent of the SDCCD transfers to the UC and 9.7 percent of the SDCCD transfers to CSU. African American students make up 6.2 percent of the County's high school graduates and represent 9.1 percent of the District's enrollment, but only 2.9 percent of the District's transfers to the UC and 7.8 percent to CSU.

A third group that is not represented by proportionate enrollment and transfer are Filipinos (5.5 percent of high school graduates, 4.1 percent of the District's enrollment, 3.9 percent of transfers to UC and CSU (each)). In contrast, Asian students comprise 6.0 percent of high school graduates, 9.4 percent of the District's enrollment, and 13.2 percent and 11.0 percent of the District's transfers to the UC and CSU, respectively. Since 1988, the number and percentage of African American, Latino and Asian/other (Pacific Islander, Filipino, Native American) students in the District have increased while the number and percentage of Caucasians has decreased (Figures 10 and 11).

Figure 9.
Ethnic Distribution by Segment
for San Diego County, 1989



HS - San Diego County High School Graduates (1988-89)
CCC - First-time Freshmen at California Community Colleges for San Diego County (Fall 1989)
CSU - First-time Freshmen at the California State University for San Diego County (Fall 1989)
UC - First-time Freshmen at the University of California for San Diego County (Fall 1989)
SDTRSCU - San Diego Community College District transfer students to the California State University (Fall 1989)
SDTRUC - San Diego Community College District transfer students to the University of California (Fall 1989)
SDCCD - San Diego Community College District student population by ethnic group (Fall 1989)

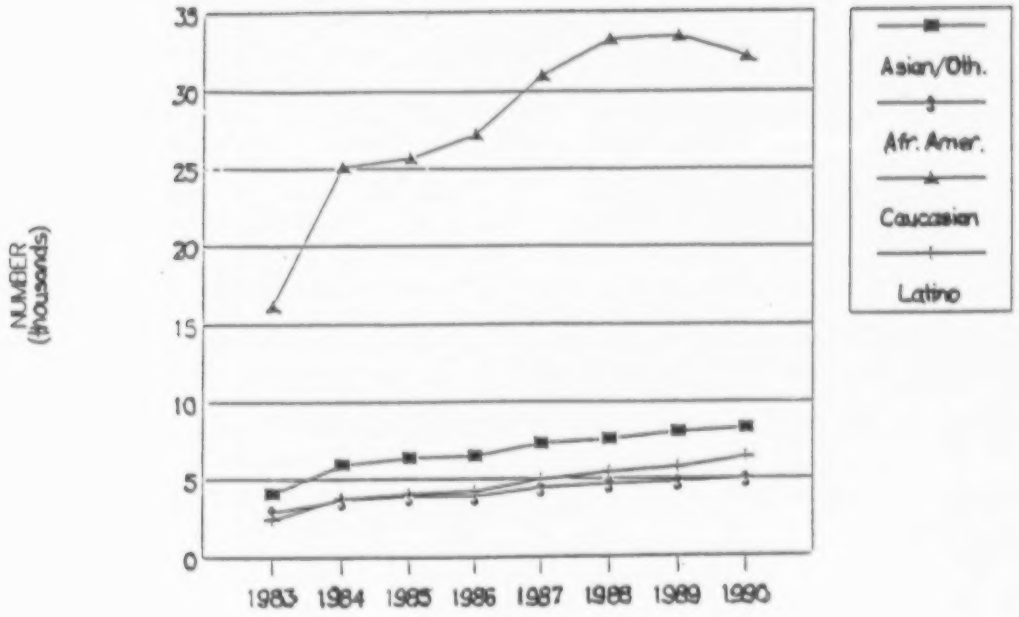


Figure 10. Frequency distribution of the San Diego Community College District by racial/ethnic group, Fall 1983 through Fall 1990. Source: Research and Planning Student Profiles.

The ethnic distribution of the SDSU transfer profile group was similar to the State and County distributions just described, with a slightly lower percentage of Latino students (7.9 percent) and a slightly higher percentage of Caucasian students (66.8 percent). Analysis of the profile data showed some differences between the ethnic groups. Native American and African American students in the profile group tended to be older than students in other ethnic groups (27 and 26 years old, respectively). The average age of Filipino and Asian students was 22.6 and 22.8 years old, respectively.

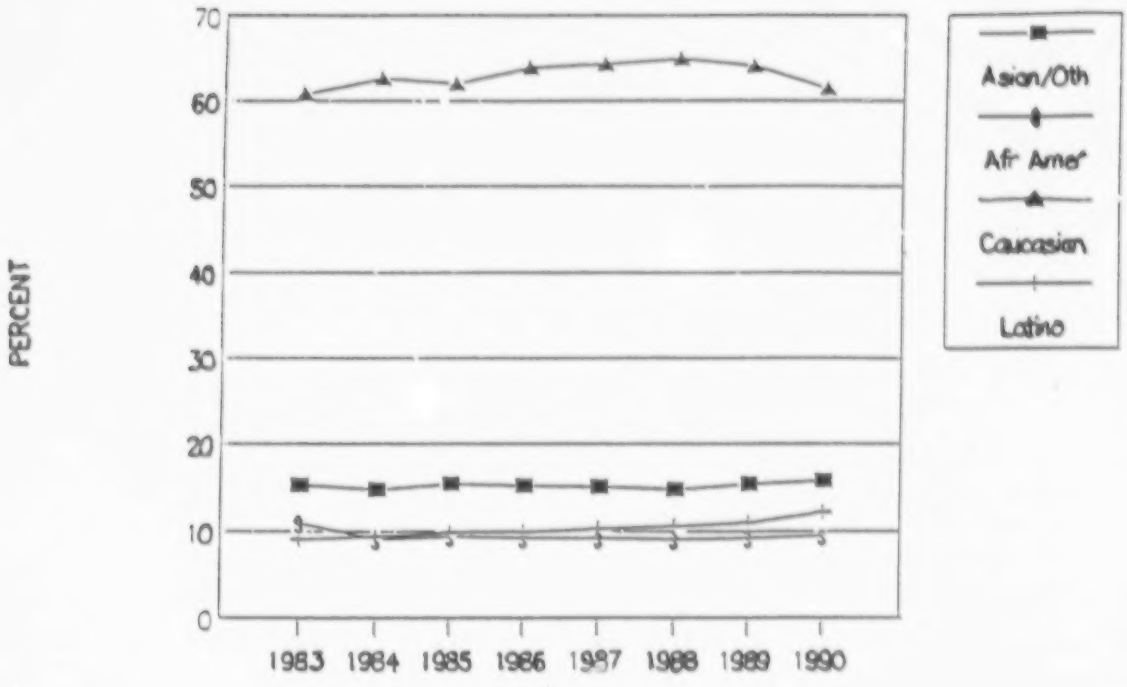


Figure 11. Percent distribution of the San Diego Community College District by racial/ethnic group, Fall 1983 through Fall 1990. Source: Research and Planning Student Profiles.

Grade Point Average (GPA)

Native American and Caucasian students had the highest GPA for community college coursework (3.11 and 3.08) and were the two groups whose GPA declined the least after transferring to SDSU (Figure 12). African American students had the lowest GPA in community classes (2.75) and showed the largest decline in GPA after transferring (.66).

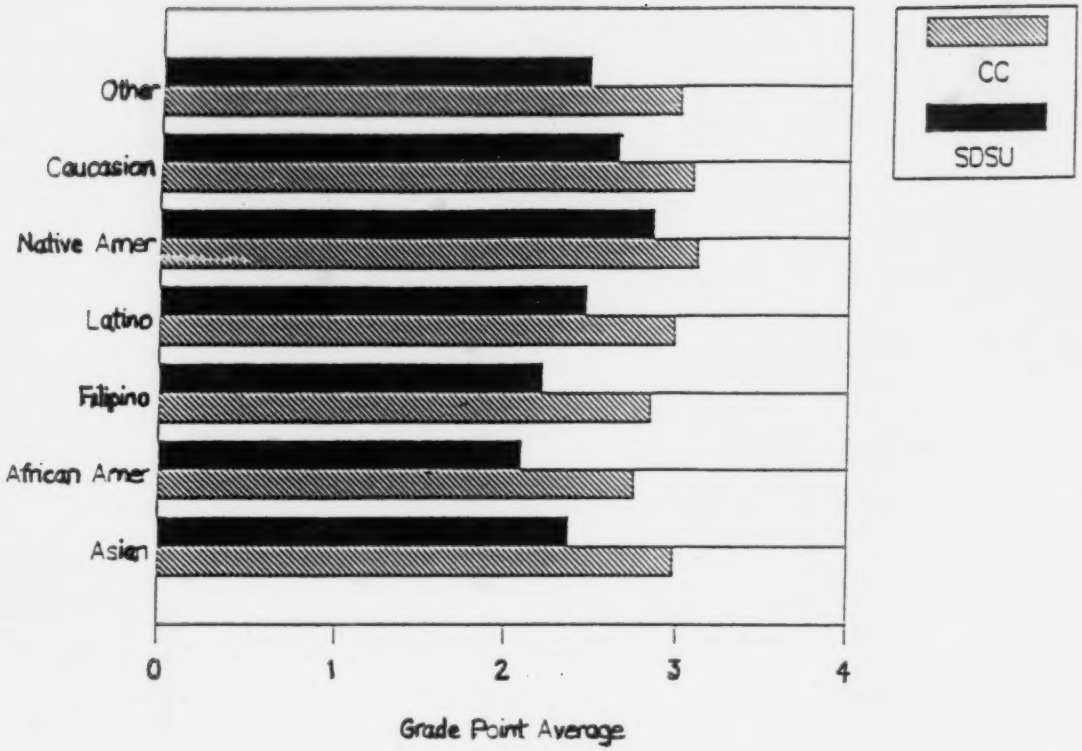


Figure 12. Grade point average distribution by racial/ethnic group for transfer students while in the San Diego Community College District (CC) and after transferring to San Diego State University (SDSU). Source: 1990 data match with SDSU.

Transfer Credits

The median number of transfer credits accepted by SDSU was highest for Native American students (70) followed by Latino students (69) and Caucasian students (65). Asian, African American, and Filipino students averaged 64 units of transfer credits accepted by SDSU. The number of transfer credits accepted exceeded the number of units accumulated at a SDCCD college by 0 to 24 units, indicating that many students had credits from other institutions (Figure 13).

There were no significant difference in the educational objective listed by students in the different ethnic groups. In each group, 75 - 80 percent of the students listed "transfer" as their educational objective.

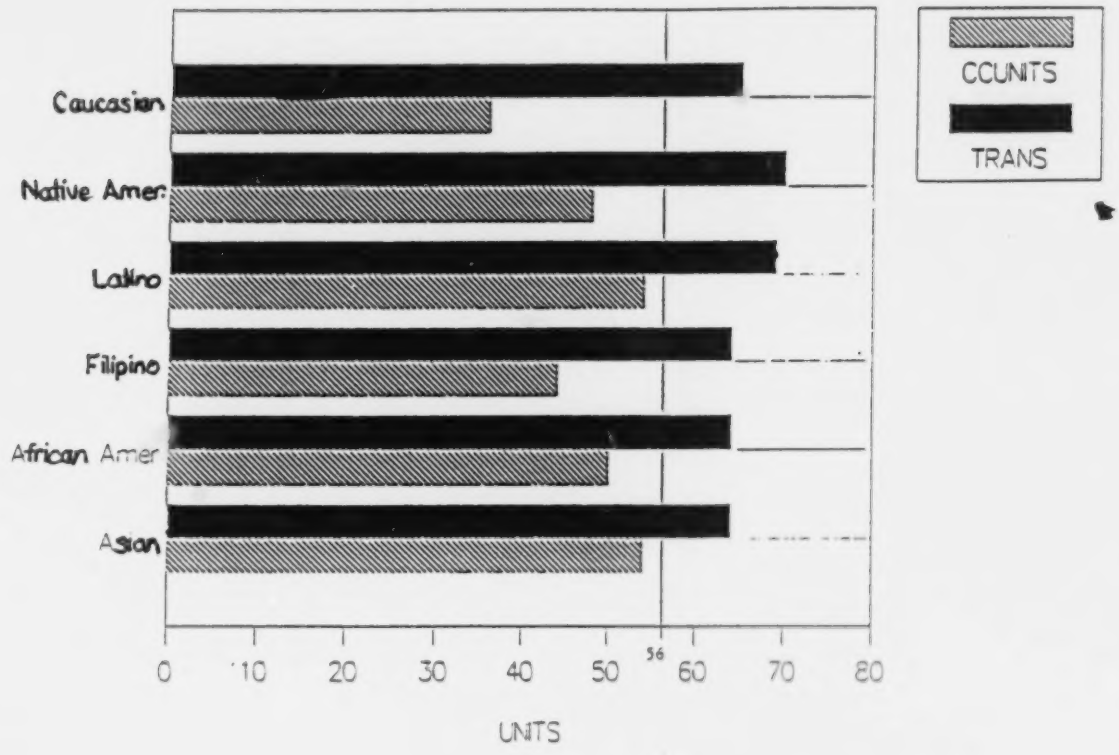


Figure 13. Median number of San Diego Community College District units taken before transferring (CCUNITS) and median number of transfer units accepted by San Diego State University (TRANS). by racial/ethnic group for profile sample. Source: 1990 data match with SDSU.

Performance of Transfer Students

The performance of community college students who transfer to the University of California and the California State University is on par with students who start out at the four-year institutions. Academic Performance Reports published by the CSU reports that the average grade point average (GPA) of "native" students (students that start out as freshmen at the CSU) was 2.57 compared to 2.47 for all California community college students transferring to SDSU and 2.53 for San Diego Community College District students transferring to SDSU. SDCCD transfer students in the profile group dropped an average of half a grade point on transferring to SDSU.

Yaklin (1987) found that while transfer students to the University of California, Davis fared well academically, they tended to take longer to earn a degree. Over 68 percent of the transfer students took seven or more quarters after transfer to graduate (22 percent took ten or more quarters). While a minimum of 56 units is required to transfer to a four-year institution, 39 percent of the students in the profile group transferred to SDSU with more than 56 units (16 percent transferred with more than 80 units). Almost 25 percent of the seniors had more than 133 units, the maximum number of units needed to graduate with a bachelor's degree in any major.

V. SUMMARY

Community college student transfer to the University of California and the California State University increased steadily from the mid-sixties to the mid-seventies, peaking in 1975. After declining through the late seventies, the number of transfers remained fairly constant through the eighties. Based on CPEC data, the last three years of available data have shown a slight increase.

In 1990, a data match was run with San Diego State University (SDSU) to examine the number and characteristics of students who had transferred from one of the San Diego Community College District's colleges to SDSU. According to the profiles generated, the "typical" SDCCD transfer student at SDSU is a Caucasian female between the ages of 20 and 24 attending school on a full-time basis. The "typical" student in the District is also a Caucasian female, however, she is likely to be older (35 years and older) and attending on a part time basis (3-6 units). Almost 77% of the transfer students identified "transfer" as their educational objective compared to 51% of the general SDCCD student population. The performance of transfer students to SDSU was on par with students who started out at four-year institutions.

Caucasian and Asian students represented a slightly higher percentage of the transfer group than their representation in the District's general population; Latino and African American students made up a slightly smaller percentage. Native American and African American students tended to be older than students in other ethnic groups. The distribution by educational objective was very similar for all groups. Native American and Caucasian students had the higher grade point average (GPA) for community college coursework and lowest decline in GPA after transferring to San Diego State University.

The transfer function over the next decade will be an important issue facing the community college for several reasons:

1. The number of baccalaureate degree recipients in the State is far below the national average. California community colleges transfers represent an important contribution to this source as half of the CSU and one-fifth of the UC baccalaureate degrees are granted to community college transfer students.

2. Achieving the State's Master Plan's goal of educational equity will not be easy for four-year institutions. As shown in Figure 9, the percentage of certain ethnic groups at the University, African Americans and Latinos in particular, are not representative of the general population. The large majority of college-bound African American and Latino students attend community colleges.

3. Recent "accountability" legislation has set forth student transfer rates as a measure of institutional effectiveness.

4. Initial educational aspirations of "vocational training," "personal," or "undecided" may later change to "transfer to four-year institution" (CPEC, 1990).

These reasons demonstrate the need to measure accurately and monitor transfer statistics. The adoption of a consistent definition of transfer will allow the District to assess systematically the status and effectiveness of its transfer and articulation activities.

A variety of methods for calculating a transfer rate were presented earlier. Cross-sectional equations that use enrollment (whether defined as headcount, full-time equivalents, credit-only students, etc.) in the denominator are flawed in that comparisons are made between groups of students that may differ in important respects. Many of the students in the "potential transfer" pool are not, as Berman and Weiler would say, "reasonably" able to transfer. Berman and Weiler made adjustments to the cross-sectional equation to include only those students who were reasonably able to transfer.

The difficulty with the Berman-Weiler/NETC model is that it only identifies students when they <u>leave</u> the system not when they enter. Because not all students in a group of leavers entered at the same time, students will have been influenced by different external factors that could in turn affect transfer decisions. The NETC model is compounded by problems in data collection. Student follow-up surveys are the primary source for determining if a leaver transferred, thus the transfer rate is in large part

determined by the response rate to surveys, mobility rate of students and differences among groups that tend to respond to surveys. The Transfer Assembly model relies strictly on institutional data from the community colleges and senior institutions.

The Center for the Study of Community Colleges' Transfer Assembly model adjusts for the difficulties encountered in the other models. The model parallels the NETC model in defining the transfer pool as those students reasonably able to transfer (though accomplishes this in a different way) and identifies students when they enter the system to "control for" external variables. The advantages of the Transfer Assembly model are that it corrects for the flaws of other models and in that respect is more comprehensive than other models, and yet it is simple to understand and compute.

VI. RECOMMENDATIONS

1. Continue to work with San Diego State University on data matching and expand these efforts to include the University of California, San Diego; the University of San Diego; and National University. The 1990 data match has provided information that is valuable in the planning and assessment of District transfer and articulation activities. This will also assist in meeting both the spirit and intent of Model Accountability System (MAS) mandates.

2. Explore additional means of moving the District toward the goal of educational equity. Certain groups (Latino and African American students, for example) are represented in the transfer profile sample in a smaller proportion than their representation in the District's general population and the community at-large. Given that the UC and the CSU accept only the top one-eighth and one-third of public high school graduates, respectively, and with increasing tuition costs, community colleges represent an alternative, and often the only, way for these groups to access higher education.

3. Adopt the Transfer Assembly's model of transfer. In order to accurately assess District transfer effectiveness, a consistent definition of transfer needs to be adopted and applied. Of the models most widely recognized, the longitudinal cohort tracking model proposed by the Transfer Assembly is comprehensive and corrects for the flaws present in other models.

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